

Claims:

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1. Apparatus for performing electronic selection actions in response to receipt of one or more special service messages, said special service messages arriving at a first port, comprising:

5 a first module coupled to said first port for decoding said special service messages;

a POT CPE port;

a switch interposed between said first port and said POT CPE port;

10 a second module, responsive to said first module, for controlling state of said switch based on information contained in said special service message; and

a signaling detection module responsive an off-hook condition at said POT CPE port for applying an off-hook detection signal to said second module.

15 2. The apparatus of claim 1 wherein said special service messages contain called number information.

3. The method of claim 2 wherein said one or more special service messages are embedded in an alert signal.

20 4. The apparatus of claim 3 wherein said alert signal contains ringing signal bursts within a ringing cycle.

25 5. The apparatus of claim 1 wherein said second module includes an associated memory, and control said state of said switch based on information stored in said memory and information contains in said special service message.

6. The apparatus of claim 5 further comprising a clock coupled to said second module, to assist said second module in its control of said state of said switch.

30 7. The apparatus of claim 6 wherein said clock generates time and date information.

8. The apparatus of claim 1 wherein a special service message comprises a coded ringing signal.

5 9. The apparatus of claim 1 further comprising a ringing signal generator responsive to said second module, for applying a ringing signal to said POT CPE port.

10. The apparatus of claim 9 where said ringing signal is a coded ringing signal.

10 11. The apparatus of claim 9 where said ringing signal is coded to indicate
(a) whether said special service messages indicate that a connection with said apparatus is sought to be established to a called number that is listed in a directory that is accessible to everyone,

15 (b) whether said special service messages indicate that a connection with said apparatus is sought to be established to a called number that is unlisted in said directory,

(c) whether said special service messages indicate the calling number that seeks to establish a connection with said apparatus,

(d) time of day, or

(e) type of call.

20 12. The apparatus of claim 11 where said type of call is taken from a set that includes collect call, cellular calls, international calls, fax calls, modem calls, and credit card calls.

25 13. Apparatus for performing electronic selection actions in response to receipt of called number ID signal arriving at a first port, comprising:

a first module coupled to said two terminals for decoding called number information embedded in said alerting signal;

a POT CPE port;

30 a switch interposed between said first port and said POT CPE port;

a second module, responsive to said first module, for controlling state of said switch; and

a signaling detection module responsive an off-hook condition at said POT CPE port for applying an off-hook detection signal to said second module.

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14. The apparatus of claim 13 wherein said called number information is embedded in an alerting signal in the form of ringing signal bursts within a ringing cycle.

15. The apparatus of claim 1 further comprising a display responsive to said second module.

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16 The apparatus of claim 1 further comprising an off hook detector connected to said first port, for applying an off hook detection signal to said second module.

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17. The apparatus of claim 1 where said first module detects called number information in said special service message.

18. The apparatus of claim 1 where said special service message is in the form of digital information preceding, or following a first ringing signal burst.

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19. The apparatus of claim 1 wherein said second module compares information decoded by said first module from said special service message to one or more pre-stored numbers within said second module.

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20. The apparatus of claim 19 where said first module detects a special service message that includes a number to be stored, and causes said second module to store said number so as to include said stored number among said one or more pre-stored numbers.

21. The apparatus of claim 20 where said number to be stored arrives at said second module in the same signaling format that all other special service messages have.

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22. The apparatus of claim 1 further comprising a second signaling detector, responsive to signals from said POT CPE port, for receiving a number to be stored in said second module.

5 23. The apparatus of claim 22 where said second signaling detector is responsive to DTMF or pulse signaling from said CPE.

24. The apparatus of claim 1 further comprising a hardware address.

10 25. The apparatus of claim 1 wherein said special service messages indicate
(a) whether a connection with said apparatus is sought to be established to a called number that is listed in a directory that is accessible to everyone,

(b) whether a connection with said apparatus is sought to be established to a called number that is unlisted in said directory,

15 (c) the calling number that seeks to establish a connection with said apparatus,

(d) time of day, or

(e) type of call.

20 26. The apparatus of claim 25 wherein said type of call is taken from a set that includes collect call, cellular calls, international calls, fax calls, modem calls, and credit card calls.

25 27. Apparatus for performing electronic selection actions in response to receipt of one or more special service messages, said special service messages arriving at a first port, comprising:

a first module coupled to said first port for decoding said special service messages;

an plurality of POT CPE ports;

30 a plurality of switches, with each switch interposed between said first port one of said POT CPE ports; and

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a second module, responsive to said first module, for controlling state of said switch based on information contained in said special service message.

28. The apparatus of claim 27 further comprising a signaling detection module responsive an off-hook condition at said POT CPE ports for applying an off-hook detection signal to said second module.

29. The apparatus of claim 27 wherein at least one of said switches is a normally closed switch.

30. The apparatus of claim 27 wherein at least one of said switches is a normally open switch.

31. Apparatus for performing electronic selection actions in response to receipt of called number ID arriving at a first port comprising:

a first module coupled to said first port for decoding special service messages embedded in said alerting signal;

a series connection of a ringer and a ringer switch, across said first port,

a series connection of telephone circuitry and a hook switch, across said two terminals; and

a processor, responsive to said first module, for controlling state of said ringer switch.

32. A method for responding to an alert signal that contains an embedded called number ID in an alerting signal comprising the steps of:

identifying said called number ID in said alerting signal;

comparing said called number ID to at least one pre-stored number;

ascertaining whether at least one other call attribute is met; and

applying ringing signal bursts to a POT CPE port when said at least one other call attribute is met and said called number ID matches one of said at least one pre-stored numbers.

33. The method of claim 32 where said step of comparing compares said called number ID to a plurality of pre-stored numbers.

5 34. The method of claim 32 where said at least one call attribute includes any one or more from a set that includes caller ID, called number ID, time of day, date, and type of call.

10 35. The method of claim 34 wherein said type of call is taken from a set that includes collect call, cellular calls, international calls, fax calls, modem calls, and credit card calls.

15 36. The method of claim 32 where said at least one call attribute includes any one or more from a set that includes caller ID, called number ID, and time of day.

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